WHAT IS CLAIMED IS:

1. A method of diagnosing predisposition to, or presence of ovarian cancer, breast cancer and/or lung cancer in a subject, the method comprising determining a level of SIM2 in a biological sample obtained from the subject, said level being correlatable with predisposition to, or presence or absence of the ovarian cancer, breast cancer and/or lung cancer, thereby diagnosing predisposition to, or presence of ovarian cancer, breast cancer and/or lung cancer in the subject.

2. The method of claim 1, wherein said biological sample is a tissue sample and/or a body fluid sample.

3. The method of claim 2, wherein said tissue sample is selected from the group consisting of an ovarian tissue, a lung tissue and a breast tissue.

4. The method of claim 1, wherein said SIM2 is selected from the group consisting of SEQ ID NOs: 1, 2, 3, 7, 8 and 9.

5. The method of claim 1, wherein said determining level of said SIM2 is effected at an mRNA level.

6. The method of claim 1, wherein said determining level of said SIM2 is effected at a protein level.

7. The method of claim 1, wherein said determining level of said SIM2 is effected at a gene amplification level.

8. A method of treating ovarian cancer, breast cancer and/or lung cancer in a subject, the method comprising downregulating expression or activity of SIM2 in a lung tissue, breast tissue and/or an ovarian tissue, thereby treating the ovarian cancer, breast cancer and/or lung cancer in the subject.

9. The method of claim 8 wherein said SIM2 is selected from the group consisting of SEQ ID NOs: 1, 2, 3, 7, 8 and 9.

10. The method of claim 8, wherein downregulating expression or activity of said SIM2 is effected by administering to the subject:

(a) a molecule which binds SIM2;

(b) an enzyme which cleaves SIM2;

(c) an antisense polynucleotide capable of specifically hybridizing with an mRNA transcript encoding SIM2;

(d) a ribozyme which specifically cleaves SIM2 transcripts;

(e) a non-functional analogue of at least a catalytic or binding portion of SIM2;

(f) a molecule which prevents SIM2 activation or substrate binding;

(g) an siRNA molecule capable of inducing degradation of SIM2 transcripts;

(h) a DNAzyme which specifically cleaves SIM2 transcripts or DNA; and

(i) a molecule which promotes a SIM2-specific immunogenic response.

11. The method of claim 10, wherein said molecule which binds SIM2 is an antibody or antibody fragment capable of specifically binding said SIM2.

12. Use of an agent capable of downregulating SIM2 expression or activity for the treatment of ovarian, breast and/or lung cancer.

13. The use of claim 12, wherein said agent capable of downregulating SIM2 activity is an antibody or antibody fragment.

14. The use of claim 12, wherein said agent capable of downregulating SIM2 expression or activity is an oligonucleotide.

15. The use of claim 14, wherein said oligonucleotide is a single or double stranded polynucleotide.

16. The use of claim 14, wherein said oligonucleotide is at least 17 bases long.

17. The use of claim 14, wherein said oligonucleotide is hybridizable in either sense or antisense orientation.

18. Use of a SIM2 detecting agent for detecting ovarian, breast and/or lung cancer.

19. The use of claim 18, wherein said agent for detecting ovarian, breast and/or lung cancer is an oligonucleotide .

20. The use of claim 18, wherein said agent for detecting ovarian, breast and/or lung cancer is an antibody or antibody fragment.

21. The use of claim 18, wherein said agent for detecting ovarian, breast and/or lung cancer is coupled to a detectable moiety selected from the group consisting of a chromogenic moiety, a fluorogenic moiety, a radioactive moiety and a light-emitting moiety.

22. An article-of-manufacture comprising a packaging material and a composition identified for treating ovarian, breast and/or lung cancer being contained within said packaging material, said composition including, as an active ingredient, an agent capable of downregulating SIM2 expression or activity.

23. The article-of-manufacture of claim 22, wherein said agent capable of downregulating SIM2 activity is an antibody or antibody fragment.

24. The article-of-manufacture of claim 22, wherein said agent capable of downregulating SIM2 expression or activity is an oligonucleotide.

25. The article-of-manufacture of claim 24, wherein said oligonucleotide is a single or double stranded polynucleotide.

26. The article-of-manufacture of claim 24, wherein said oligonucleotide is at least 17 bases long.

27. The article-of-manufacture of claim 24, wherein said oligonucleotide is hybridizable in either sense or antisense orientation.

28. The article-of-manufacture of claim 22, wherein said agent capable of downregulating SIM2 expression or activity is an antibody or antibody fragment.

29. The article-of-manufacture of claim 22, wherein said SIM2 is selected from the group consisting of SEQ ID NOs: 1, 2, 3, 7, 8 and 9.

30. An isolated polynucleotide comprising a nucleic acid sequence encoding a polypeptide being at least 80 % homologous to SEQ ID NO: 39, 40 or 41 as determined using the BestFit software of the Wisconsin sequence analysis package, utilizing the Smith and Waterman algorithm, where the gap creation equals 8 and gap extension penalty equals 2.

31. The isolated polynucleotide of claim 30, wherein said polypeptide is as set forth in SEQ ID NO: 39, 40 or 41.

32. An isolated polynucleotide comprising a nucleic acid sequence being 80 % identical to SEQ ID NO: 39, 40 or 41, as determined using the BestFit software of the Wisconsin sequence analysis package, utilizing the Smith and Waterman algorithm, where gap weight equals 50, length weight equals 3, average match equals 10 and average mismatch equals -9.

33. The isolated polynucleotide of claim 32, wherein said nucleic acid sequence is as set forth in SEQ ID NO: 2 or 3.

34. An isolated polynucleotide as set forth in SEQ ID NO: 2 or 3.

35. A nucleic acid construct comprising the isolated polynucleotide of claim 30.

36. An isolated polypeptide as set forth in SEQ ID NO: 39, 40 or 41.

37. A method of diagnosing predisposition to, or presence of cancer in a subject, the method comprising determining a level of SEQ ID NO: 2 and/or 3 in a biological sample obtained from the subject, wherein said biological sample is suspected of being a cancerous tissue or associated with said cancerous tissue and whereas said level being correlatable with predisposition to, or presence or absence of the cancer, thereby diagnosing predisposition to, or presence of cancer in the subject.

38. The method of claim 37, wherein said determining level of said SEQ ID NO: 2 and/or 3 is effected at an mRNA level.

39. The method of claim 37, wherein said determining level of said SEQ ID NO: 2 and/or 3 is effected at a protein level.

40. The method of claim 37, wherein said determining level of said SEQ ID NO: 2 and/or 3 is effected at a gene amplification level.

41. A method of treating cancer in a subject, the method comprising downregulating expression or activity of SEQ ID NO: 2 and/or 3 in a cancerous tissue, thereby treating the cancer in the subject.